

THE
RURAL DISTRICT COUNCIL
OF
HARTSHORNE & SEALS.

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ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE YEAR 1908.

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RODERIC LOGAN, M.R.C.S., ENG.,

Medical Officer of Health.

February 1909.

Ashby-de-la-Zouch.

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ASHBY-DE-LA-ZOUCH,

February 10th, 1909.

TO THE RURAL DISTRICT COUNCIL OF HARTSHORNE AND
SEALS.

MR. CHAIRMAN AND GENTLEMEN,

I beg to present to you my Annual Report upon the Sanitary state of your District for the year 1908.

Appended are tables giving details of causes of death, new cases of infectious disease, population, and birth, with Inspector's work during the year.

These tables deal with each parish separately, both as to causes of death and the incidence of infectious disease.

The Infantile Mortality is calculated from the number of deaths under one year of age per 1,000 registered births.

The Vital Statistics are calculated per 1,000 persons living.

ANNUAL REPORT.

GENERAL STATISTICS.

AREA IN ACRES

Land—15,282 acres.

Water.....

		Census 1901.	Estimated 1908.
Population	...	6988	8012
Inhabited Houses	...	1470	1690

Chief Occupations—Agriculture, Mining, Pottery.

New Houses erected during the year—10.

Rateable Value, £37,699.

General District Rate, 7½d. in the £.

VITAL STATISTICS.

	Birth Rate.	Inf. Mort.	Crude D.R.	Phthisis D.R.	Typhoid D.R.
Average for past 10years	32·3	129	13·4	0·7	0·54
Rates for 1908	30·7	105	13·7	0·7	0
	Zymotic D.R.	Cancer D.R.	Respiratory D.R.		
Average for past 10years	0·99	0·6	3·0		
	(8 years only)				
Rates for 1908	1·1	1·3	2·1		

It is unsatisfactory to note that the Birth-rate is steadily decreasing. The Death-rate compares favourably with the average rate for 10 years ending 1907. The Infantile Mortality rate for this year is 105 as compared with 129 for the ten years average. The Respiratory death rate (diseases of the lungs) is 2·1 as compared with 3·0. The Cancer death rate is this year 1·3, the highest since 1900.

Only 16 cases have been notified, including 4 Diphtheria, 3 Scarlet Fever, 2 Typhoid, and 7 Erysipelas. It is satisfactory to note that no case of Puerperal Fever (the fever of childbirth) has been notified, and the exceptionally few cases of Scarlet Fever.

With regard to the Diphtheria, all four cases occurred at Tickenhall. The first was notified on November 12th, and was rapidly fatal. Two untrapped drains opened in front of the house by the causeway. These communicate directly with the main sewer (culvert). The drinking water is obtained from a pump at the back of the house close to which is another untrapped drain. It is possible that the well is polluted by the percolation through the surface of the yard, as the bricks are defective and not laid in cement. The child had attended school, and the sanitary arrangements of the school are not of the best, but I have no reason to think the disease was contracted there. The main sewer is a brick culvert which is unventilated, except through the gratings for storm water. Sewer gas would find its way up the house drain, and the gully being untrapped, the child in playing about the causeway would probably be affected by it.

The next case was notified on December 12th in another scholar. There was an untrapped drain in a cellar under the kitchen (living room), which must communicate with the sewer. Steps lead down into the cellar from the kitchen, and shelves on the wall of these steps are the only provision for storing food. I found milk, bread

and butter there at my visit. I think contamination of food by sewer gas very probable in this case. The mother of the child was suffering from diphtheria at the time of my visit. Both cases were removed to the Isolation Hospital. The well water here is badly polluted.

On December 15th the 4th case was notified in a scholar of 5. There was no connection with the main sewer to be found. The privy and ashpit were very close to the house. It is possible that this child was infected at school by the previous case. This case was removed to the Hospital. The well water is polluted and contains lead.

On December 18th I was called to a child whom I found suffering from Diphtheria. The farm lies on the boundary of Tickenhall and Foremark, and the case was notified to Repton. This child had been attending school and may have been affected by Nos. 2 or 4, but the drains of the farm were found to be in an exceptionally bad state,—one drain, untrapped, opening into the dairy. The whole drainage system is being relaid and put into thorough sanitary order. It is more probable that the condition of the drains in this house caused contamination of food and the infection of the child, than that she was infected at school. These few cases are important in view of the sewerage of Tickenhall, to which I shall refer more particularly when dealing with that parish.

Typhoid.

Of the two cases, one occurred in a house where the well water was found to be polluted by

percolation from a broken drain. In the other case the house drains were not connected with main sewer (Woodville), and discharged into an open hole in the garden, about 20 feet from the house, overflowing into the ditch close by. This was foully offensive at the time of my visit. The drains have since been connected with the main sewer and the cesspool done away with.

Under this subject I should like to call the attention of each Member of the Council to the dangerous practice of simply burying Typhoid excreta in the garden. It is and always has been the usual practice, but it has been definitely proved that the germs of Typhoid remain active in the soil for periods of months or years, that they infect growing crops, such as potatoes, which may be planted for a considerable period after, and that therefore this practice may lead to further outbreaks of the disease, and indeed is very likely to do so. The excreta should be burnt, but this is almost impossible in a cottage, unless the parish is provided with a destructor to which they can be conveyed. The next best method is treating them freely with crude carbolic acid in quantity before disposal, or fresh chloride of lime may also be used if in considerable quantity. I always give this advice on visiting a notified case, but it is as well that it should be more publicly recognised.

Isolation
Hospital.

I drew attention last year to the need for an extra ward at this Hospital. I have had recently to refuse admission to a case of Typhoid owing to the two wards being occupied by Diphtheria

and Scarlet Fever respectively. Nursing accommodation is much needed, also the present caretaker is getting old and increasingly infirm. When she gives up her post it will hardly be possible to get anyone but a trained nurse to undertake the work. She would require better accommodation than at present exists. A disinfecting apparatus is very necessary.

The infectious Diseases Prevention Act 1890 has, I am glad to note, been adopted this year.

Woodville.	Estimated population	..	..	3010
	Birth-rate	..	..	26
	Infantile Mortality Rate	..	..	93
	General Death Rate	..	..	10.6
	Zymotic Death Rate	..	..	0.9

There is a decrease in the birth-rate, last year it was 41. The other rates are satisfactory.

Six cases of Infectious disease occurred,—3 Erysipelas, 2 Scarlet Fever, and 1 Typhoid.

In the Typhoid case the drains had not been connected with the main sewer but emptied into a shallow cesspool in the garden. This has been rectified and connection made with the sewer. The water used at this house was from a well. This was analysed and condemned, and the main water supply is being laid on.

Sewerage.

There are three contact beds and one percolating filter (the latter was put in 1907). The sewage used to be mixed with alumino-ferrie before filtration but this has been discontinued for the last two

years without affecting the effluent adversely, and saving the blocking of the contact beds which used to occur.

The working of the contact beds is not satisfactory, and has not been so for some years. A better effluent would be obtained, in the opinion of your Inspector, by substituting percolating filters for the contact beds. The effluent is irrigated over 11 acres of land, mostly heavy clay, 4 acres of this land is under cultivation.

Scavenging. This has been satisfactorily carried out this year. There is a public tip for disposal of contents of ashpits. The night-soil is conveyed in closed slop carts to be used on the land. W.C.s. have been substituted for privy middens in a few cases again this year.

Water Supply. Mainly from the Swadlincote and Ashby Joint Water Authority, but there are still some surface wells in use. In 3 cases the well water has been analysed and condemned and the main supply laid on instead.

Hartshorne.	Estimated Population	..	..	1583
	Birth Rate	..	..	35
	Infantile Mortality Rate	..	..	123
	General Death Rate	..	..	17.05
	Zymotic Death Rate	..	..	1.2

The General death rate and the Infantile death rate are both rather high. In 1907 after a wet summer the Infantile death rate was 41, in 1906 after a dry summer it was 136. This year with a considerable proportion of hot dry weather in the summer it is 123. I note this in view of the

necessity of a public tip for the house refuse. There are always a large number of tins and such useless material in these ashpits. There are always many heaps of refuse, ashes, etc., in the yards or gardens of the cottages, the tenants having no place to cart them to, as the farmers do not require them. These refuse heaps give rise to clouds of foully contaminated dust which specially affects the milk—the chief food of young children, and greatly encourages the propagation of the housefly which is a constant contaminator of all food.

Sewerage.

Nothing has been done in this matter yet as the Council has been engaged all the year on the question of the Water Supply.

Water

Supply.

The following scheme has been decided upon by your Council, subject to the approval of the Local Government Board, who have not yet settled the date of their enquiry.

The source of the proposed supply is from the Several Wood Spring. This is situated about 1200 yards South East of Hartshorne, rising from sandstone rock at 463.O.D. The estimated quantity per hour is 1000 gallons. The estimated supply per head of the village population is 12 gallons per day.

With regard to the purity of the supply, the County Analyst has sent an entirely satisfactory report except that it is hard. With regard to possibilities of pollution, there is Several Wood Farm standing on rising ground about 250 yards distant, Stonehouse Farm also within the 500 contour line is 800 yards distant, Short Hazels Farm about 500 yards distant lies below the level of the spring.

It is proposed to build an apron wall around the spring ; a small collecting tank immediately adjoining from which the water will be piped to a reservoir in the glebe field, of a capacity of 13,500 gallons, then in 3 inch mains down Slack Lane and the Repton Road to Tan Yard, with branch mains to Church Lane, Goseley, the Tickenhall Road and Cinder Hill.

Overseale.	Estimated Population	..	..	1527
	Birth Rate	..	..	36
	Infantile Mortality Rate	..	..	127
	General Death Rate	..	..	11·7
	Zymotic Death Rate	..	..	Nil

These Rates are satisfactory.

Water Supply. This is from wells and there has been no complaint of quantity, neither has there been any reason to suspect the quality this year.

Scavenging. This has been satisfactorily carried out throughout the year.

Sewerage. The Woodville Road Sewage is now dealt with in a screening chamber tank for precipitation of sludge, distributed over a filter bed by a fixed branched distributor, designed by your Inspector to take the place of a revolving arm distributor, where no sufficient head of fluid can be obtained. This is giving a good effluent. The same distributor is in use on the Shorth Heath section now, and the effluent is among the best in the County by the last quarterly report of the County Medical Officer.

This village is now completely and satisfactorily sewered and the sewage efficiently dealt with, with the single exception of a small section at the Netherseale end where the sewage is irrigated in a deep ditch which is kept clean.

Netherseale.	Estimated Population	..	..	677
	Birth Rate	..	..	20
	Infantile Mortality Rate	..	..	0
	General Death Rate	..	..	11·8
	Zymotic Death Rate	..	..	Nil

The Birth rate is very low, the others are quite satisfactory.

Scavenging. This is done by the tenants and there has been no difficulty in dealing with this matter this year. The farmers take the ash refuse for their fields.

Sewerage. The two closed precipitating tanks have been cleaned out every three months. Several house drains have been re-laid and properly trapped.

Water Supply. From surface wells only. Nothing has arisen to cause suspicion of this supply.

Tickenhall.	Estimated Population	..	..	767
	Birth Rate	..	..	31
	Infantile Mortality Rate	..	..	125
	General Death Rate	..	..	20·8
	Zymotic Death Rate	..	..	2·6

Both the General death rate and the Infantile death rate are high this year.

Sewerage. The sewerage of this village consists of an old stone culvert under the Main street which commences at the Ashby end of the village about

100 yards above the Green. It runs under the roadway down to the junction of the Burton Road with Main Street. Under the Main Street it is continued as a brick culvert to 300 yards below the bridge where it ends by the side of the road and runs in an open course mainly but occasionally underground (brick culvert) till it discharges into the large pool in the old limehouse quarries known as Dexter's Pool. Throughout its course it receives a very large volume of water, partly from the spring A, (Ashby end of village) from numerous storm water openings, all untrapped, from the storm water and land drains of Burton Road, from the spring by the old Post Office opposite Rose Lane, so that it is practically a brook discharging perhaps 1200 gallons per day where the culvert ends by the roadside, beyond the culvert an open sewer and brook in one.

The fall from beginning to end is considerable and uniform—about 80 feet in 1700 yards or 1 in 21.

It receives the whole sewage (slop only) of the village along its course, about nine-tenths of the population of 767.

Outfall.

At the outfall into Dexter's Pool is a sufficient area of flat waste ground (rock subsoil) upon which small outfall works could be erected. On the opposite side of the road are brickworks where the necessary bricks for tank could be obtained. Actually on the spot is any quantity of partly dressed stone (old lime kilns) which would build the walls of the percolating filters. The stone might also be used as filtering material.

No excavation for either tank or filter would be required in view of the rapid fall of the land—this would mean a considerable saving of labour and the additional advantage of having practically everything required in construction already on the spot reduces the probable expense to the lowest possible estimate. The sewage would have to be piped to the outfall and the necessary amount of dilution could be secured by admitting a certain amount of the present incoming water. At present the volume of water and sewage is too great for treatment in a small tank and filter.

A good many of the present house drains are defective and although a large number of gullies have been trapped, there are still a great many untrapped.

In two cases of well water analysed the water is grossly polluted with organic matter, and I expect to find that there are defective house drains in the neighbourhood of the wells.

Water

Supply.

There is a very large supply of pure upland water available in Tickenhall, issuing from the underlying millstone grit. Supply A at the south end piped to the roadside stone trough supplies about 3,400 gallons a day at a low estimate and has never been known to fail. Supply B is obtained from a pump by the roadside opposite the Chequers. Supply C from spout by roadside near Old Post Office. Supply D from spout by roadside at extreme north end of village. All these are used by the villagers, some of whom at the south end have to go over 100 yards for every bucket of water required. The rest of the water supply is from wells.

Supplies A and B have been analysed, both are reported pure and of excellent quality for domestic use, but it must be noted that the water is solvent of lead, as in the case of B where there is a lead pipe from well to pump, there was a trace of lead reported by the County Analyst. I am having C also analysed as there is probable pollution from an adjoining cowshed, but this could easily be rendered safe from pollution.

The water from two wells has been analysed and found grossly polluted. I am having two other well waters analysed, one of which is suspicious and the other considered perfectly pure. One of the polluted wells supplies at least seven families and the other supplies four at least.

There has always been great complaint of the water supply in this village in spite of the abundant supply, because almost everyone has to fetch what they require from a greater or less distance, consequently house drains are insufficiently flushed. There is no provision for flushing the closets at the school, a very important requirement. Water has to be kept in receptacles in the houses and therefore liable to pollution, as well as becoming flat and unpleasant to the taste, and the labour of cleansing house floors and flushing yards is doubled.

A good supply of pure water is essential to the purveyors of milk of whom there are 8 in the village.

With the available water almost every house in the village can be supplied by gravitation, and the necessity is so urgent and the probable

expense so reasonable, that I ask the Council's serious consideration of this matter during the present year.

Smisby.	Estimated Population	..	..	355
	Birth Rate	..	..	30
	Infantile Mortality Rate	..	..	90
	General Death Rate	..	..	25·3
	Zymotic Death Rate	..	(Measles)	5·6

Water
Supply From surface wells.

Scavenging. This has been satisfactorily carried out by the tenants.

Sewerage. Several defective gullies have been repaired and trapped.

Factory and
Workshops
Act. There are 53 Cow-keepers on the Register. Regular inspection has been carried out and 10 notices served and nuisances remedied.

There are 13 Slaughter-houses under inspection. One notice to limewash served and remedied.

The 12 Bakehouses have been inspected and no nuisance observed.

There are no offensive trades or Common Lodging houses.

Factories. 2 notices for defective sanitary arrangements have been served and the nuisances remedied.

Outworkers. No case of infectious disease has occurred amongst Outworkers.

Meat
Inspection.

One case of exposure of unsound meat for human food was brought before the Magistrates and the offender fined. In another case a suspected carcase was found dressed as if for human consumption but not exposed for sale. It was destroyed. In both cases evidence of tubercular disease was found in the carcase.

Water
Supply.

The condition of Cowsheds and Dairies is generally satisfactory as regards cleanliness and sanitary arrangements.

Milk Supply.

The means of ventilation are usually very unsatisfactory. There are ample openings but in cold weather there is no means of avoiding draughts except by shutting the ventilators. Ventilation of cowsheds should not be obtained by wide openings but rather by perforations in the walls of which the outer aperture is much smaller than the inner so that the air entering at small apertures and passing through a widening channel loses its force by the time it reaches the interior, in this way draught is considerably lessened. The lighting of the cowsheds is in many cases defective—they are too dark.

The purity of the water required for Dairy use is essential. Where well water has to be used it is important that all possible means of pollution of the well be removed. In Tickenhall there is an insufficient supply of water though that can be and should be easily remedied as I have pointed out in the body of this Report.

The average cubic feet of space allowed to each cow in the sheds is about 480 cubic feet. The minimum allowance for health is 600 cubic feet per cow.

Schools.

There are 8 public elementary Schools in this district. 3 are Council Schools, 2 of these recently erected, the third an old School converted from a chapel. The others are Church Schools. The sanitary arrangements of all but the 2 new Council Schools and Woodville Church School are very unsatisfactory. In Tickenhall, Woodville Council, Overseale Church, Netherseale and Hartshorne, they are too close to the main building. The closets are either privy middens or pans. In Tickenhall both exist side by side. The pans are emptied regularly and are satisfactory, but the midden is only emptied twice a year, and it causes soakage into the subsoil. Where there is no public main water supply pans are much preferable to middens if emptied regularly. Water closets should be erected in Woodville Council School and the present unsanitary trough at Hartshorne should be replaced by water closets as soon as the water supply is laid on.

Better arrangements for cleanliness (lavatory basins) with full supply of water (rain water from roofs collected into a large cistern) are necessary. Hartshorne is well supplied with lavatory basins but there is insufficient water.

Lighting is generally good, and openings for fresh air sufficient, but there is, as a rule, no means of warming the incoming air, a serious defect in consequence of the cold draughts caused by open windows. Roof outlets and Tobin tubes for ventilation purposes are not always in working order.

With regard to cleanliness of buildings, the walls, windows, etc., are satisfactory, but floors are scrubbed only twice a year. They are swept every day, but this is not sufficient. Floors of all rooms should be thoroughly scrubbed once a fortnight, preferably with an antiseptic. The character of the playground may add greatly to the dirt on floors. In Hartshorne it is of loose ashes, and the floors are very dirty owing to the ashes carried by the children's boots into the rooms. Asphalt or clean, fine gravel would prevent much dirt on floors.

In September I commenced the work of Inspection of School children. Only those entering and those leaving School have so far been examined. 111 examinations were made up to December 31st. The condition of the children examined was generally satisfactory. Personal cleanliness was very satisfactory. Defects in clothing and footgear were rare. Defective vision was found in 18, defective hearing in 2, 3 were dull and backward and one mentally deficient. One case only of Phthisis was observed and 13 were verminous (mostly nits in hair). The teeth were usually markedly defective, from 2 to 6 decaying or decayed teeth were almost invariably found. This is certainly the most serious condition observed so far. Defective teeth mean defective digestion and that in the young means defective growth—a loss of physical power of incalculable importance to the State.

In all cases of remediable defects printed cards of advice are sent to the parents: the School Nurse also visits all homes when directed to do

so by the Medical Inspector and assists both practically and by advice to the parents to remedy the conditions noted. The Medical Inspector also visits all homes where necessary.

I hope next year to report upon means taken in detail for dealing with the various conditions and the results obtained.

In conclusion, I beg to recommend to your serious consideration the question of the Water Supply of Tickenhall and the Scavenging of Hartshorne.

I am, Gentlemen,

Your obedient Servant,

RODERIC LOGAN,

Medical Officer of Health.

Annual Report of Sanitary Inspector

1908.

Hartshorne & Seals Rural Sanitary District.

NAME OF INSPECTOR—ARTHUR LEWIS.

Area of District—11,568. Estimated No. of Houses—1,690.

New Houses erected 1908—10.

	Informal Notices Served by Sanitary Inspector.	Nuisances Abated.
DWELLING HOUSES—		
Repaired	11	11
Infected Houses Disinfected	11	
DRAINAGE—		
No Disconnection of Waste Pipe	6	6
Defective Traps, Inlets, & Drains	22	22
Drains Obstructed	5	5
CLOSETS AND ASHPITS—		
Insanitary Privies and Ashpits	29	29
OTHER DEFECTS—		
Surfaces of Courts and Yards ...	19	19
Eaves-Spouts and Down-Spouts	7	7
Urinals Defective	3	3
Water Supply	3	3
Offensive Accumulations ...	15	15
Totals	131	120

	Number on Register.	Inspections Made.	Notices Served.
Dairies, Cowsheds, & Milkshops	53	49	10
Bakehouses	12	12	
Slaughterhouses	13	12	1
Totals	78	73	11

Action taken by Inspector against spread of Infectious Disease. } Patients isolated or removed to Hospital and premises disinfected.

Signed, ARTHUR LEWIS.